

# The GARZETTE

April, 1999

Volume 10, Issue 2



## Special points of Interests:

- On The Air features a very special **GARS** member.
- Mike Swiderski, K4HBI provides an answer to last month's *Question Of The Month*
- The main repeater site in Lawrenceville is featured as *The Shack Of The Month*
- Lou Manglass, NY4F takes us on a tour of ARRL headquarters

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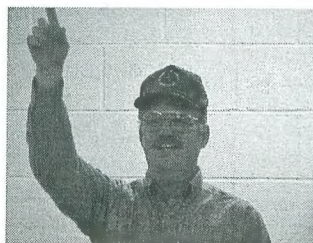
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## The President's Pen

By David Adcock, KA4KKF

It's springtime and every ham's fancy turns to putting up that new tower or antenna. Well that's another story. I want to thank everyone for their support during the election of officers. The executive committee will be meeting on the second Monday of every month for now. You can see the list of new officers and committee chairmen in *The GARZETTE*. If you have business for **GARS**, please attend an executive meeting. Even if you don't and you would like to attend come on over.

Our club has grown



**GARS** President David Adcock, KA4KKF.  
Digital image by KE4GYM.

in the past 6 years by leaps and bounds. I believe it is because of you. That's right you, every one of you that volunteer to help at a club function. The fun times we have together and the sad

times that come along. Every one of you makes up this club of individuals. When we ask for help, there you are raising your hand to volunteer. The more people that help the easier it is to do the work. I want to thank every one that volunteered for the functions in April and May. If you are not able to make it this time, you'll have plenty more opportunities. But when we have such a turn out for these events sometimes we have too many for the event and we have to schedule you for some-

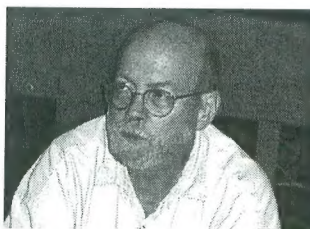
(Continued on page 9)

## TechnoBuddy Bill Husted, KQ4YA Featured Speaker For April Meeting

By Brian Seigmund, KF4MWI

The **GARS** meeting on April 15th will have as it's featured speaker, Bill Husted, KQ4YA. Most of us are most familiar with Bill via his TechnoBuddy column in the Personal Technology section of the Sunday edition of the *Atlanta Journal Constitution*.

Bill has indicated that he will be making some opening remarks to



AJC TechnoBuddy Columnist Bill Husted, KQ4YA the featured speaker for the April Meeting.

Digital image by Brian Seigmund, KF4MWI.

the club and then would like to have the meeting become an informal gab session between the members and himself.

If you would like to find out more about Bill, he maintains a web site at [www.mindspring.com/~bhusted/bills.htm](http://www.mindspring.com/~bhusted/bills.htm).





## The GARZETTE

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The GARZETTE is created on a Pentium II-300 MHz computer using Microsoft Publisher 98 and Microsoft Office 97.

The GARZETTE is published each month with the assistance of Joe Biddle, AD4PZ and Karl Phillips, K4GZZ who interface with the printer. Paul Brisendine, K4HCM does the final production work on The GARZETTE by folding, labeling, stamping and getting the end product to the Post Office each month. Many thanks to both of them and all article contributors.

### **Deadline for submissions is the first of each month.**

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# March Meeting Minutes

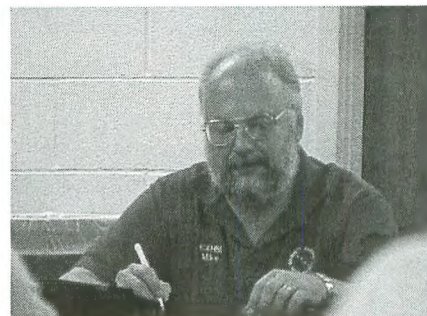
By Mike Swiderski, K4HBI

On March 18, 1999, David Adcock, KA4KKF called his first meeting as GARS President to order at 19:35 local. Introductions of the officers were followed by all in attendance. KG4CDQ was recognized as a visitor. Upgrades by K4TJD, KF4NOG to Extra, as well as K4HCM completing the Extra written element were recognized. A rousing ovation was given to the rare appearance of WA4ZUW, Carlton.

Howie, W4NVF was called to introduce the evening's program. Fred Runkle, K4KAZ, gave a fantastic program on VHF/UHF amateur operations. Although primarily focused on 6 meters, the offered techniques are usable on all the short wavelengths and included many operational facets from feedline and transverters to VUCC and the SVHF conference on April 9 and 10 at the Marriott on Wendy Hill road in Marietta. A discount conference sign up fee was offered to attendees signing up that night as well as answers to many questions. Thanks Fred for a splendid program as you could tell by the applause.

The newest Garzette was offered to all and those not in attendance would receive their copy by mail. As time was given for the members to read the previous months minutes, the Treasurer Jeff, KF4NBD, gave his report with the final balance being \$4551.96. The treasurer's report was accepted by motion, second, and vote as was the February meeting minutes as published in the Garzette. There were no additional reports from the secretary or repeater chairman.

Howie's Activities Chairman's report was highly animated in calling for and getting volunteers for two GARS sponsored events. The first being the April 24, March of Dimes Walkathon, starting from the



GARS Secretary Mike Swiderski, K4HBI takes notes at the March Meeting.

Digital image by Ike Chapman, KE4GYM

Vinings Botanical Gardens. Volunteers were KE4IGD (event captain), N4MLB, AJ4S, KF4KDF, KB6RRX, KE4CWI, and KD4EXY. The second event is the May 1, Snellville Days Parade that will be staffed by the following volunteers: K4GZZ (event captain), N1TOQ, WA4ZUW, KE4IGD, KB6RRX, KF4KDF, W4JLB, KF4VBR, KG4ATH, N4MLB, AJ4S, KD4EXY, and W4NVF.

Howie continued by listing a third event, the "Repeater Open House" to be held from 11 AM until 2 PM on March 27, at the Lawrenceville Water Tower site (the one with the Black Knights logo). The site can be accessed by taking Culver Rd. off of Hwy. 29 in Lawrenceville. Come one come all to see the repeater(s) at this site.

The Membership Chairman, Jack, KN6DO offered the following for membership, the eight names with an \* were recent graduates of the GARS classes that were setup by Win, W1TWX, the club Educational Coordinator:

KF4OJL Daniel Lillard  
KG4CED Larry Thill \*  
KG4CFC Cindy Burns \*

(Continued on page 3)



## March Meeting Minutes

(Continued from page 2)

KG4CFD Stephen Hice\*  
 KG4CFE Janice Hice \*  
 KG4CFF Steve Risken\*  
 KG4CFG Evelyn Horne\*  
 KG4CFH William Guinn, Jr \*  
 KG4CFI Jim Cook\*  
 KG4CFP Leonard Batson

All were accepted into the GARS family and are truly welcomed and looking forward to their participation. (KG4BDE, Jacob Lamm and KG4CDQ, Paul Bedgood, submitted membership applications after close of meeting).

Win, W1TWX, Educational Coordinator, is setting up a no-code technician class to start on Tuesday, April 13, at 7 PM at Central Gwinnett High School, Hwy 29 at Gwinnett Drive. Contact Bill Sloan at the school for registration. Win needs instructors for these classes, please contact Win to help.

Earl Whatley, AF4FG, announced that the Boy Scouts have been holding classes from 2 to 4:30 PM on Sundays.

Susan, AF4FO, Apparel and Net Manager, brought forth Vice-President Rick's, KD4VOJ, suggestion for a phone call campaign to encourage and invite members to the meeting next month. She received offers of help from W4WKP, KF4MWI, W4ADE, and W5RQR to share the phone calling initiative. Susan also made the members aware of the need of additional Tuesday night net control operators to spread the job around and N1TOQ volunteered his assistance. Susan's study of possible alternate GARS badge providers will be presented to the executive committee for review.

David, KA4KKF, brought forth information about a weather related web page that should be checked out at <http://www.hamsnet.net/kc5trr>.

Ike, KE4GYM, the Webmaster and Garzette Editor reported that a Calendar of Activities is now posted on the web page that goes through December, 99.

Gene, KF4NOG, made a request for additional net controls for the 9 PM, Tuesday night CW Code Practice net, please contact Gene if you can help. Anyone with 2M privileges can perform this activity either by hand or with a computer, much easier.

Brian, KF4MWI, indicated that next months program will be by Bill Husted, KQ4YA, the Atlanta Journal columnist referred to as the "Techno Buddy". The program content will be on computers and hams.

Mike, N4MLB, requested that anyone seeing any internet traffic regarding Andy Rooney, N4XCV, please contact Mike with that information.

Door Prize Numbers were drawn by Fred Runkle, the guest speaker. 1.) The \$25 HRO donated Gift Certificate was won by James, the son of Don Vic, KF4YQV.

2.) The MFJ 144/440 Mobile antenna was won by Manuel, KF4RLZ 3.) World Radio Issue was won by Robert, KF4VBR.

David closed the meeting at 21:05 local.

Respectfully, Mike K4HBI, Secretary

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### Random Ramblings

"A logging computer lets you make more mistakes faster than any invention in human history -- with the possible exceptions of a quart of tequila and a borrowed Vibroplex key."

— Anonymous

Thanks to K4TJD

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## GARS

### Officers

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#### Vice President

Rick Morris, KD4VOJ (770)945-5818

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#### Treasurer

Jeff Cutchins, KF4NBD (770) 614-8750

#### Activities Manager

Howie Gould, W4NVF (770)921-8362

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Randy Drescher, K4HS (770)925-9549

Ike Chapman, KE4GYM (770)339-8123

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#### Publicity Chairman

Karl Phillips, K4GZZ (770)736-9736

#### Newsletter Editor

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#### Repeater Chairman

Howie Gould, W4NVF (770)921-8362

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Barry Zoll, N1TOQ (770)277-5175

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#### Contest Manager

Open

#### Net Manager

Susan Swiderski, AF4FO (770)449-0369

#### CW Net Manager

Gene Gach, KF4NOG (770) 925-0186

#### Field Day

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Don Button, AJ1T (770) 476-2432

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#### Christmas Party Chairman

Tammy Sokol, (770)925-1619

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Open

#### QSL Manager

Ade Wirth, W4ADE (770)614-3743

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# On The Air With Mark Cooney, WF4OOL

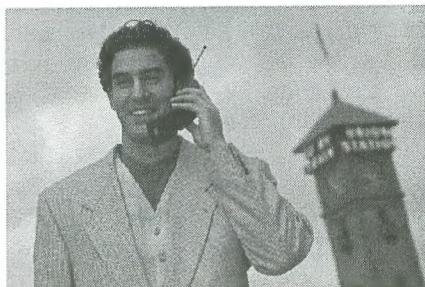
By Karl Phillips, K4GZZ

This months' ON THE AIR features one of **GARS** newest members - Mark Cooney - WF4OOL. Mark was born in Slippery Pebble, Virginia and went to R.U. Shure High School. Mark attended high school with the famous brewer Al. K. Hall. Actually, they went to different schools together.

After high school, Mark went straight into the job world working for FoolTool Distributors. His company manufactured and sold bin stretchers, pitch forks, paint brushes and monkey wrenches. All of these tools were specially designed for people who were left handed.

Mark became interested in ham radio when one of his co-workers demonstrated his mobile unit. His friend, Rah Chafootoff was one of their European employees from India and licensed EG4NOG. Rah had a mobile unit that really got Marks' attention. Rah ran a Hammarlund HQ-170 receiver and a Johnson Viking Ranger HF mobile rig. His antenna was a 7 element KLM quad-bander. Rah's wife objected to him mounting it on the roof of the vehicle so Rah used the standard bumper mount, to avoid having to drill holes. Mark was astonished when Rah made contact with another ham in Duluth. That's all it took ...and Mark was hooked on ham radio.

Mark was a little short on cash so he decided to buy a used rig for a starter rig. Mark went to the Hog Mountain Hamfest and picked up a used Dakcomm Drifter for a reasonable price. This is a tube-type rig and Mark soon found the could work the entire band without ever turning the VFO. That "puppy" was truly state of the art ham gear and would go up and down the band just



Mark Cooney makes a contact on 800 Mhz during some of his travels

after switching the power on. It had just amazing coverage !!!!

Mark then attended one of Howie's test sessions and on April 1<sup>st</sup>, 1995 passed his Tech-Minus license and became WF4OOL. Mark says that the written was easy but sending the code was hard because his fingers kept getting in the way.

Mark has worked some local stations on his Dakcomm, but he has also worked some good DX. Mark has made several friends both locally and overseas. Some of his contacts have actually sent him gifts. Mark worked OB4GUD in Brussels, Belgium who sent him a case of their famous sprouts. He worked OI8TWO in Vienna, Austria and he sent Mark some of their sausages. On 80 meters, Mark has become friends with a local over in Hoover, Alabama, who got him a good deal on a vacuum cleaner.

Mark is glad he is a member of **GARS**. Mark has already volunteered to work several upcoming **GARS** events including the Split Silk Parade, in June and the Snellville Animal Hospital Dog Show in December. He is also planning to work communications for Carl Days and he is volunteering to be a band captain at this years upcoming Field

Day. He will band captain the 160 meter QRP single sideband rig. All who want to pull a shift...give Mark a call !!!

Mark just acquired his first 3 meter mobile rig and plans to remove the 1 meter chip. That will allow him the 2 meters he will need to work the **GARS** 147.075 repeater. I am going to help Mark get on the 6 meter repeater by loaning him my spare 3 meter chip. That way, by adding my 3 meter chip to his 3 meter rig he will be able to work the 6 meter repeater. I'm such a nice Elmer, aren't I ??

Mark Cooney was a very interesting interview for ON THE AIR. If you hear Mark on the air ....you may want to let him know that he is operating without a valid license and using a bootleg call. Last of all, if you hear him, something has got to be wrong with your radio because

YOU'VE BEEN HAD !!  
APRIL FOOL !!!

See you next month !!!  
Karl - K4GZZ



## Random Ramblings

"If the world should blow itself up, the last audible voice would be that of an expert saying it can't be done."

— Peter Ustinov

"Courtesies of a small and trivial character are the ones which strike deepest in the grateful and appreciating heart."

-- Henry Clay

"There is nothing more uncommon than common sense."

-- Frank Lloyd Wright





# Question Of The Month

This month's question comes from **GARS** President David Adcock, KA4KKF.

"I would like every member to give me their opinion on the functionality of a clubhouse for meetings and activities."

*Please respond to the editor by May 1, 1999 to have your response included in the next edition.*

The April Question of the Month was submitted by Brian Page, N4TRB.

"I have a question that has bothered me for years. How can I quantitatively measure the quality of my ground system? I use two ten-foot copper clad rods and have never had any grounding problems. So, while I am sure this is adequate for my system, I would still like to have a quantitative evaluation. It also seems obvious that frequency plays an enormous role. The ideal, of course, is to have a low-impedance broad-band system. But, I suspect, many ground systems probably have a rather well-defined resonance. In my thirty years of reading *QST*, I've never seen this adequately addressed."

Mike Swiderski, K4HBI has responded to the question.

Ground Rod Resistance????

Wow, this is a complicated science and a full explanation would take an inch thick Garzette, however lets see if I can boil this down. A single ground rod driven in the earth has a simplified resistance about equal to the following:

$$R \approx (\rho/2\pi l) \ln(4l/d)$$

Where  $\rho$  = earth resistivity in ohm-cm

$l$  = rod length in cm

$d$  = rod diameter in cm

Cool, earth resistivity can be found from charts or measured directly using several techniques, but what they caution about is the earth must be homogeneous. This means that it is just dirt, nothing but dirt,

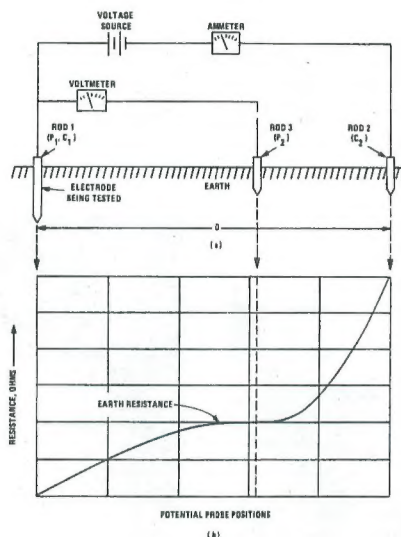


Figure 1

and the same dirt through out, so unless you are putting a rod in the middle of virgin acreage this does not do much for the real world.

But, for the real world of water and gas pipes, CATV grounds (tee hee), radials, and chain link fences, along with the fertilized garden, the ground is to say the least "not homogeneous" and the resistance measurement is only good for the day it was taken. Huh? The ground resistance is highly dependent on moisture content (did it rain yesterday or last month), temperature, and chemicals (fertilizer salts lower the resistance and dissipate with time). Notice, I did say measurement, which I believe is the heart of the question. One can measure the ground rod resistance at that moment. See Figure 1.

This is one of the many industry methods, known as "fall of potential" or the "62%" method. First, there is not enough space to go into all the intricacies and limitations of the measurement, so do not go up against an engineer in an argument over accuracy of measurements,

however this method will get you in the "ball park". "Rod 1" is the ground rod. Rod 2 is a short "current" probe, ~ 1 foot. Rod 3 is the "voltage" probe, ~ 1 foot. To measure an eight foot ground rod, the "voltage" probe should be about 50 feet from the ground rod and the "current" probe should be about 80 feet from the ground rod. All three rods must be in a row.

So how does the measurement work? That slick old Mr. Ohm is going to help. First we put a source voltage between the ground rod and the "current probe" with an ammeter in series. The ammeter will measure the current flowing between the electrode and the "current probe". Look at the dirt between the two probes as a big resistor and since this is a series resistor the current along it is the "same". The "voltage probe" is placed along the path and the voltage is read. Using Ohms law, the voltage reading divide by the current reading gives you the ground rod resistance to the local earth.

The distance placement or separation of the probes is crucial as shown on the above graph. Why, well the fields generated from the current probe and the ground rods are hemispherical in nature. By properly choosing the probe length and distance from the ground rod, the interaction of these two fields can be avoided. Therefore, when doing this measurement, reduce the source voltage to the minimum, to attain readings on the meters (use the most sensitive meters possible), this will help to eliminate the field interactions.

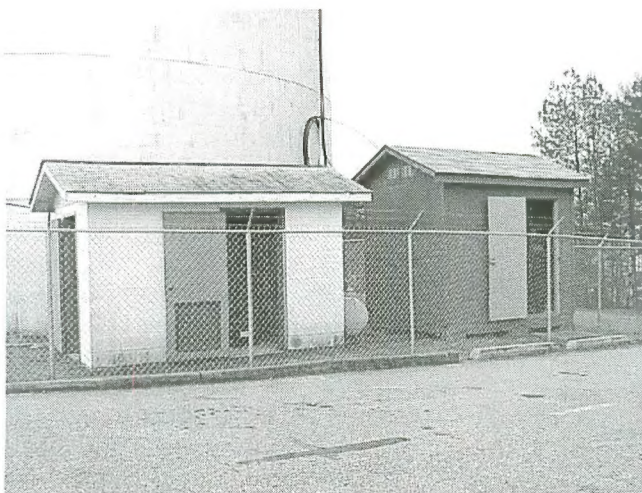
Notice I have only said a voltage source, is this a DC source? Could be if you take two measurements, by reversing the power supply polarity and averaging the answers, to eliminate galvanic volt-

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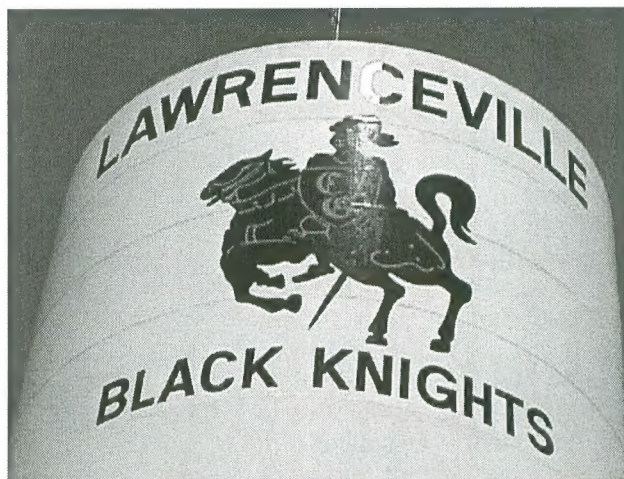


## Shack Of The Month W4GR Main Repeater Site

Since Howie Gould, W4NVF announced the open house at the main repeater site I thought it would be a great idea to feature it this month. The open house was held on Saturday, March 28th with Howie giving tours and lots of information on the repeater equipment out to all that could drop by the site. The images here were taken by Brian Seigmund, KF4MWI and Ike Chapman, KE4GYM.



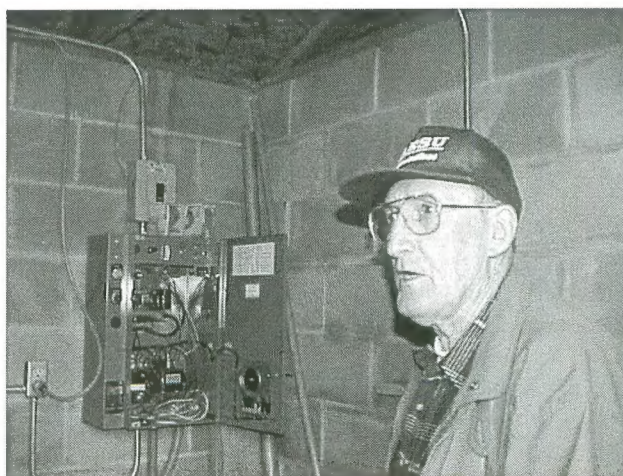
The building on the left houses the six meter repeater, the site generator, and power distribution equipment. The building on the right houses the two meter main repeater and backup batteries.



Find the Black Knight and find the repeater site!



**GARS** Repeater Chairman Howie Gould, W4NVF discusses the components of the two meter repeater and voting receivers.

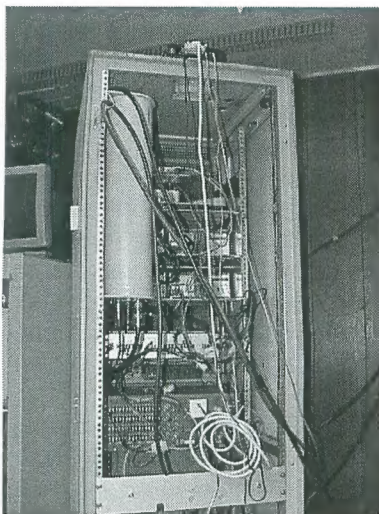


Howie, W4NVF explains the emergency power setup at the Lawrenceville main repeater site. In the background is the control and distribution panel for the repeater site.

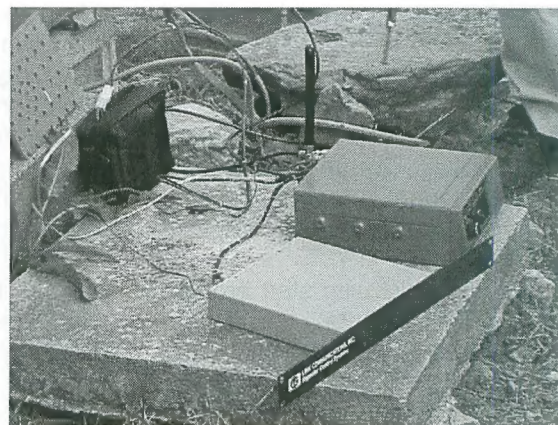
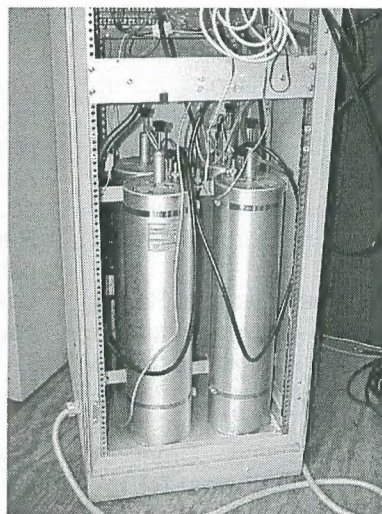


# Shack Of The Month

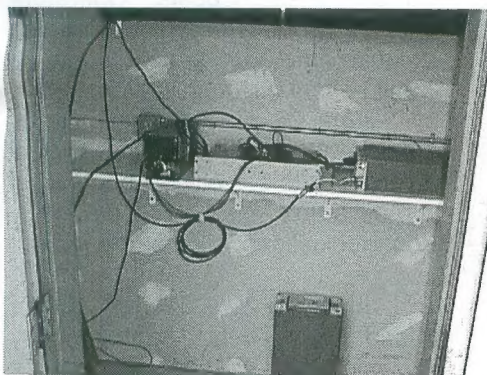
## W4GR Main Repeater Site



Rear view of the equipment rack containing the main two meter repeater.



A typical setup for one of the remote receive sites, this one is usually used at Bogan Road in Buford.



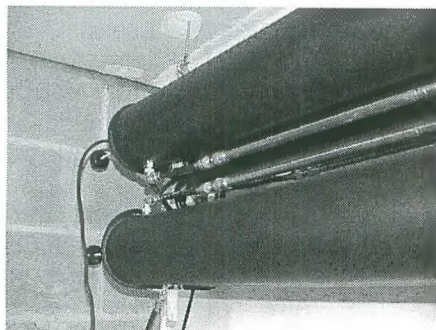
The W4GR six meter repeater setup.



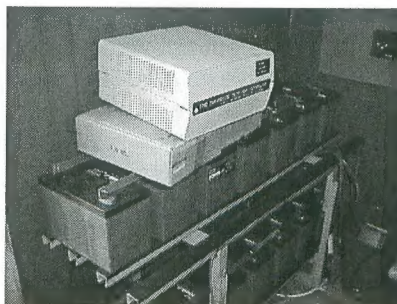
"What was that phone patch code again?"



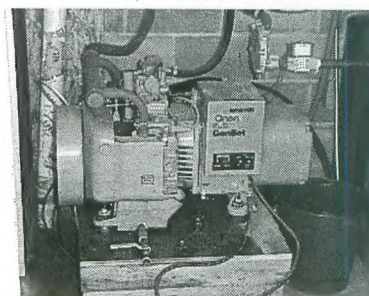
**GARS** President David Adcock, KA4KKF takes a look at the packet equipment.



One end of the six meter duplexers,



Battery backup setup at the main site.



The propane powered generator at the Lawrenceville site.



# CRYSTAL RADIO CLUB VISITS THE A.R.R.L.

*By Lou Manglass, NY4F*

Have you ever wondered what it's like to operate from a dream station? Did you ever dream about what sort of station you might build if cost were no object? On November 10, five Crystal Radio club members found out when our club visited the A.R.R.L. and operated from W1AW.

An early morning start brought Matt Laverty, N2RER; Jon Miner, N2XFZ; Dick Miner, KG2DZ; Lou Manglass III, N2WWU; and yours truly to the central Connecticut location by 10AM. The first order of business was to check in with the receptionist at League headquarters. During the brief wait we marveled at all the historic radio apparatus on display in the lobby museum, truly a very impressive collection of radio history! League representatives also accepted V.E. and DXCC paperwork for return to us later the same day.

Our escort arrived, none other than Bob Schetgen, KU7G; Assistant Technical Editor and author of QST magazine's monthly "Hints and Kinks" column. Bob led us on a detailed tour of the entire headquarters including the Awards Bureau, the Foreign Bureau, the V.E.C., the Education Department, and the A.R.R.L. test lab. We marveled at many of Zack Lau's creations on display at the lab and toured the publishing offices of QST.

After lunch, it was time for the main event! W1AW is an overwhelming facility. The incredible antenna farm does not even do justice to what we found on the inside. Each of three studios has two operating positions allowing up to six simultaneous HF operators. Matt generated the greatest pileups with his forty meter CW operation while Jon and Lou swapped 12, 15, and

17 meters; Dick and I filled in the gaps while another visitor contentedly plugged away on 20 meter CW and phone. The Chief Operator, Jeff Bauer, WA1MBK managed to keep up with our constant switching of radios and antennas throughout the afternoon.

The equipment was a Ham's delight! Every major manufacturer was represented with at least one piece of top-shelf hardware. We found a Yeasu FT-1000, an Icom IC-781, and a Ten-Tec Omni VI among others. There was RTTY, slow-scan TV, and plenty of amplifiers to go around. However, all this fine gear paled in the face of the W1AW headquarters bulletin station. Inside a climate controlled enclosure, necessary to dissipate the heat generated during a bulletin broadcast, sat six Harris commercial quality transmitters with 1KW amplifiers.

At the end of the afternoon we signed our logs, received our certificates and walked back to headquarters for one final piece of business. Waiting for us was the DXCC award for Tom Nervegna, AA2RD. Congratulations Tom, from all of us and thanks to the folks at League headquarters for processing it so quickly.

Finally, the group was ready to head for home but not without stopping to thank everyone at Headquarters for an enjoyable and memorable experience. Wait 'til next time!



## Communicators Needed

*By Eddie Foust, WD4JEM*

The Lanier Canoe & Kayak Club will be sponsoring five amateur racing events in 1999 and has requested assistance from the Amateur Radio Community for race course safety communications. Radio operators will be able to perform communications tasks from boat and land locations using their portable VHF and UHF equipment. The events and dates are as shown below.

May 22-23, Marathon National Team Trials, this will be mostly a morning operation as there will be a 30 km race each morning finishing by noon. For this event approximately 10 operators are needed to man net control and go out on the safety boats. Operators with access to a boat and willing to volunteer time and the boat would be most helpful during this event.

June 5, Regional Junior Race - Georgia Games Regional Event For this event we need eight operators for safety communications along the sprint course.

June 19-20, USCKT Junior World Team Trials, Approximately 10 operators will be needed for each day. This will be a good time to see some Amateur Television activity as we will have help from some Atlanta area ATV users.

June 25,26,27, Lake Lanier Sprint Challenge and Youth Championship of the Americas, Approximately 10 operators will be needed each day for this premier paddle event. The operation of this event will determine if the 2003 world championships are held in Georgia. After practicing our skills on the previous weeks we want to make amateur radio shine in the public's eye. There will be over 400

*(Continued on page 9)*



## The President's Pen

(Continued from page 1)

thing else instead of this event. Boy I wish we had this problem all the time.

Let's change gears now and talk about springtime. The weather can be pretty nasty this time of year. Let's hope we don't have a repeat of last year. I understand KM4Z is looking for more people to help with ARES. If you don't know what that is, give him a call. You can catch Lowry on the repeater or catch his column in *The GARZETTE*.

April 13<sup>th</sup> is fast approaching and that is the start of a new class at Central Gwinnett High School. If you would like to help with any of the classes give (N1TWX) Win Jackson a call. He is listed in the roster.

As I sit here writing this month's article, I hear several **GARS** members on 10 meters practicing their CW. I don't know what you would like to do with this hobby. Are you an experimenter, kit builder or one who just likes to talk to a lot of people? There are so many things to do in this hobby that I don't know if I can do them all in the next 40 years. There will probably be some new mode of operation by then.

My last thought this month is from QST. How many of you are ARRL members? I would like to take this time to encourage you to join the ARRL. You need to keep up with what is going on in Amateur Radio and this is one way to do this. The April issue had an interview with K4ZDH, Riley Hollingsworth. That was a very good interview. If you are not a league member, you need to be. Call our Secretary about joining through **GARS**.

In closing this month's article, I would like to ask you if you have given any thought to what I mentioned in the March issue of *The GARZETTE*. There is a calendar on the web page for those that can surf

the web. We hope to keep it up to date so you can schedule your time for events you would like to participate in. As always *The GARZETTE* will have the up to date news for the club.

73, KA4KKF



## Communicators Needed

(Continued from page 8)

athletes plus support personnel and spectators at this event. We realize that June 26 and 27 is also Field Day which gives operators the double opportunity to do a public service event and field day all in the same weekend.

October 1,2,3, Lanier Paddlefest '99 This is the event everybody enjoyed in 1998. Stay tuned.

For more information and to volunteer please contact Eddie Foust, WD4JEM 770-339-4886 or wd4jem@bellsouth.net. (No calls after 21:30 local please.)



### Random Ramblings

"An intellectual snob is someone who can listen to the William Tell Overture and not think of The Lone Ranger."

-- Dan Rather

"Among my most prized possessions are words that I have never spoken."

-- Orson Rega Card



## Question Of The Month

(Continued from page 5)

ages produced by the electrode, probes, etc. Using DC is probably the easiest method for the amateur community. The industry uses an AC signal and tuned voltmeter that is NOT on a frequency that corresponds to 60 Hz or its harmonics, nor on utility marking and signaling tones, as the induction from these signals cause errors in the measurement. There are several commercially available units, however a bit pricey.

What is a sufficient ground, Industry standards for telecommunication central offices with ground grids are less than 1 ohm, boondocks type regenerator or repeater huts with four to eight rods with ring grounds use a 5 to 10 ohm standard. Can these be attained in the industry, sometimes but it can be economically challenging, depending on the type soil. What should you shoot for, is a single point ground to the power company ground point for your station ground. For your antenna ground, you should shoot for the straightest path to your ground rod from any external metal elements in the sky to provide a path to ground for that nasty lightning. The biggest factor in protection besides good grounding is to disconnect radios, etc. from any connection to the AC, antenna, and phone lines when not in use or when unattended. Be warned, too much or the wrong kind of cross connect grounding or bonding can result in nasty ground loops which allow your family to keep track of your QSOs via TV, Stereo, and telephone, usually not a pleasant situation.

Hope this helps, Mike, K4HBI





## **Metro Atlanta Club Meetings**

### **First Tuesday**

#### **Metro Atlanta Telephone Pioneers**

Old Hickory House  
5490 Chamblee/Dunwoody Rd, Dunwoody  
Dutch dinner is at 6:30 PM, followed by meeting.  
Talk In 145.410(-)

#### **Kennehoochee ARC**

First United Methodist Church in Marietta  
Meeting begins at 7:30 PM  
Talk In 146.880(-)

### **First Thursday**

#### **Atlanta Radio Club**

American Red Cross Building, Lindberg Plaza  
Meeting is at 7:30 PM  
Talk In -146.820(-)

#### **N.E. Georgia ARC**

Jefferson Civic Center  
Off of Memorial Dr. toward Winder from Jefferson  
Meeting is at 6:30 PM  
Talk In - 147.225(+)

### **Second Wednesday**

#### **North Fulton Amateur Radio League**

Ryan's Steak House  
Alpharetta Highway (Hwy 9), Alpharetta  
Dinner at 6:30 PM, meeting at 7:30 PM  
Talk In - 145.47(-)

### **Second Thursday**

#### **Alford Memorial Radio Club**

Killian Hall, Killian Hill Road  
Lilburn  
Dinner at 6:00 PM, meeting at 7:30 PM  
Talk In - 146.760(-)

### **Second Saturday**

#### **East Atlanta LAN**

St. Patrick's Episcopal Church  
Dunwoody  
Meeting is at 10:00 AM  
Talk In - 145.410(-) and 443.025(+)

### **Third**



### **THURSDAY**

#### **Gwinnett Amateur Radio Society**

Central Baptist Church  
Gwinnett Drive  
Lawrenceville  
Meeting begins at 7:30 PM in the fellowship hall.  
Talk In -147.075(+) and 444.525(+)

## **Metro Atlanta VE Exam Schedule**

GARS publishes Metro Atlanta area VE exam schedules as a service and is not responsible for errors or changes. Call and confirm schedules before going. All sessions are walk-in. Take copies of current license and certificate of completed elements with you to all sessions.

### **First Sunday**

WCARS VEC  
2:00 PM  
(Except July and September)  
Johnson High School  
3305 Poplar Springs RD, Gainesville  
Terry Jones, W4TL (770)967-6364

### **First Saturday**

9:00AM  
Clayton County Emergency  
Management Building  
7496 N. McDonough St., Jonesboro  
George White, KN4NG (770)361-6850

### **Second Tuesday**

7:00PM  
Walton EMC  
3645 Lenora Church Rd, Snellville  
Wayne Taylor, WD4CCA  
(770)498-7759

### **Second Saturday**

CA VEC  
8:30 AM  
Stone Mountain Methodist Church  
5312 West Mountain St.  
Stone Mountain  
Hal Martin, KI4RD  
(770)978-9160

### **Third Saturday**

CA VEC  
9:00AM

Marietta First United Methodist Church  
Room 305, 56 Whitlock Ave  
Marietta  
Larry Huff, WA4CQZ  
(770)955-3171

### **Fourth Tuesday**

ARRL VEC  
7:00 PM  
United Way Service Center  
6279 Fairburn Road, Douglasville  
Jessie Clower, KB4WFK  
(770)942-6466.

### **Fourth Friday**

W5YI VEC  
7:00 PM  
St. John Neumann Church  
801 Tom Smith Road  
Lilburn  
Headphones Provided!  
Howie Gould, W4NVF  
(770)921-8362



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## GARS Communication System

### 6 Meter Repeater

53.110 (-1 MHz) MHz  
82.5 PL

Main Repeater Site  
Oak Street, Lawrenceville

### 2 Meter Repeater

147.075(+) MHz  
82.5 PL

Main Repeater Site  
Oak Street, Lawrenceville

Backup Repeater Site

Lanier Mountain, Snellville

Remote Receive Sites

Bogan Road, Buford

Goshen Springs Road, Norcross

Lanier Mountain, Snellville

### 70 Cm Repeater

444.525(+) MHz  
82.5 PL

Main Repeater Site  
Lanier Mountain, Snellville

Remote Receive Sites

Under construction

Bogan Road, Buford

Goshen Springs Road, Norcross

### APRS

144.390 -- 1200 Baud  
W4GR/Relay



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ATLANTA, GA  
6071 Buford Hwy., 30340  
(770) 263-0705  
(800) 444-7027  
Fax: 1-410-900, Mr.  
Durando, 1 in. no. of 1-293

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### FT-840

• 100W • 12V DC • DCS  
• Gen. Cov. Rx, 100 mem.  
• Optional Ext. Auto • Tuners Available  
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### FT-1000MP HF Transceiver

• Enhanced Digital Signal Processing  
• Dual RX  
• Collins SSB filter built-in  
• 100W, Power supply built-in  
Call Now For Low Pricing!



### FT-100 HF/2M/70CM Transceiver

• Compact Transceiver w/detachable front panel  
• Rx 100kHz to 970kHz (call blocked)  
• Tx 100W 100-6M, 50W 2M, 20W 70CM  
• Built-in DSP, Vocoder, CW keyer  
• 200 Memories  
Call Now For Low Pricing!



### FT-11R/41R

2M 440MHz  
• 150 Mem. Channels  
• 1.5W standard  
• 5W option  
• Alpha-numeric display  
• Compact & back lit keypad  
Call For Low Price!

### VX-1R

2W/440 Sub Mini HT  
• 290 Memory Channels  
• 5W output  
• Receives 76-99MHz  
plus AM 800  
(Call Band Blocked)  
• Lithium Ion Battery  
Call Now For Your Low Price!

### FT-50RD

2W/440MHz Compact HT  
• DFR, Decode, Paging Built-in  
• Alpha numeric display  
• Wide Band receive  
• Battery Saver  
• 112 Memories  
• M1-Spec  
• HiSpeed scanning  
Call For Your Low Pricing!



### FT-847

Ultimate Base Station, HF, VHF, UHF  
• 120W HF/8M, 50W 2M/430 mHz  
• DSP • Full Duplex Cross-Band  
• 1200/9600 Baud Packet Ready  
Call For Low Price!



### FT-3000M

• 2M 70W Mobile • Wide Band RX  
• AM Aircraft RX • Dual Watch  
• 9600 Baud Compatible • Alpha Numeric Display  
Call For Low Pricing!



### FT-920 16-watt Transceiver

• 100W 160-6M, 12VDC  
• Built-in DFR, CW Memory Keyer  
• DSP, Auto-Notch • 99 Memories  
• Computer controllable, CAT System  
Call For Low Pricing!



### FT-8100R 2W/440 Mobile

• Ultra Compact • 50W/35W 2m/440  
• 110 memories • Wide Band RX  
• Buckle mic • Removable front panel w/rot. YSK-8100  
Call Now For Special Pricing

40, 50, 70, 100, 150, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1500, 2000, 3000, 4000, 5000, 6000, 7000, 8000, 9000, 10000, 15000, 20000, 30000, 40000, 50000, 60000, 70000, 80000, 90000, 100000, 150000, 200000, 300000, 400000, 500000, 600000, 700000, 800000, 900000, 1000000, 1500000, 2000000, 3000000, 4000000, 5000000, 6000000, 7000000, 8000000, 9000000, 10000000, 15000000, 20000000, 30000000, 40000000, 50000000, 60000000, 70000000, 80000000, 90000000, 100000000, 150000000, 200000000, 300000000, 400000000, 500000000, 600000000, 700000000, 800000000, 900000000, 1000000000, 1500000000, 2000000000, 3000000000, 4000000000, 5000000000, 6000000000, 7000000000, 8000000000, 9000000000, 10000000000, 15000000000, 20000000000, 30000000000, 40000000000, 50000000000, 60000000000, 70000000000, 80000000000, 90000000000, 100000000000, 150000000000, 200000000000, 300000000000, 400000000000, 500000000000, 600000000000, 700000000000, 800000000000, 900000000000, 1000000000000, 1500000000000, 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## From The Editor's Desk

*By Ike Chapman, KE4GYM*

I had a problem when I went to lay out this month's edition of **The GARZETTE**. I couldn't fit all the articles that had been submitted into the normal twelve pages that we publish each month. Believe me, this is an editor's dream, so if you didn't see your article show up this month, please bear with me, it will be in a upcoming edition. With this sort of support I could see a future layout going to sixteen pages instead of the present twelve.

I want to thank all of those that responded to my call for volunteers to have their shack photographed for the Shack Of The Month feature. With the Open House at the main repeater site it was a perfect opportunity to take some pictures up there and feature it for those who couldn't get by and have visited the repeater site. I'll be getting in touch



with those that did volunteer to make arrangements for photographs to be made of your setups to be featured in a coming edition.

Thanks also to Mike Swiderski, K4HBI for his response the Question Of The Month from March. I hope that all of you will take time to answer this month's question, all response's will be forwarded to

**GARS** President David Adcock and as many as space permits will be printed in the May edition.

Look for the beginning article on a series about generators by Barry Zoll, N1TOQ next month. Also look for an upcoming edition to feature an article by Dean Matthews, AD4OD about a home construction project to make your shack easier to work on those hard to reach cables and wires.

If you've got other ideas for articles, or series that you'd like to see made part of the newsletter, please let me know. I appreciate all the support and kind words that have come my way since taking over the editorship once again. My email address and phone number appear on page 2.

